

## Bearing parts, Heat treatment method of bearing parts and rolling bearing

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The steel of the component is carbonitrided at a temperature exceeding the A1 transition temperature, then cooled below it. The steel is re-heated to a hardening temperature (T2), no less than the A1 transition temperature, but less than the carbonitriding temperature. The steel is hardened. Preferred

Features: The steel is hardened at a temperature of 790-830 deg C. Steel composition Steel remote from the hardened area contains, all on a wt. % basis: 0.6-1.2 C, 0.15-1.11 Si and 0.3-1.5 Mn. Under 2 wt. % Cr is included. Hydrogen content is below 0.5 ppm. The component includes a carbonitrided layer and austenitic grains exceeding a JIS Grain Size of No. 10. An Independent claim is included for a bearing component with austenitic grains of mean size not exceeding 8 microns .



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[54] 发明名称 轴承部件、轴承部件的热处理方法  
以及滚动轴承

[57] 摘要

本发明公开了一种具有较长抗滚动接触疲劳寿命、良好的抗裂强度以及老化尺寸变化受到限制的轴承部件、该轴承部件的热处理方法以及一种包括所述轴承部件的滚动轴承。用于轴承部件(1、2、3)的钢在超过  $A_1$  相变温度的碳氮共渗温度( $T_1$ )经过碳氮共渗。钢被再加热到淬火温度( $T_2$ )该温度不低于  $A_1$  相变温度但低于碳氮共渗温度,而后再进行淬火。

